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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,681	04/03/2000	Curtis M. Pleiss	M-8379US	4600

7590 11/18/2004

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EXAMINER

TRAN, THANG V

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/542,681

Applicant(s)

PLEISS ET AL.

Examiner

Thang V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 11-35 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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The amendment dated 08/18/04 has been considered with the following result:

***Election/Restrictions***

1. Claims 11-35 and 37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 19.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-10 and 36 are rejected under 35 U.S.C. 102(a) as being anticipated by Asano (EP 969 452 A1) cited by Applicant.

Regarding claim 1, see Figs. 2 and 6 of Asano which show a spiral groove (track or groove) in an optical disk comprising: a wobble (1) which is a sinusoidal deviation from the centerline of the groove; and a first plurality of sinusoidal marks (2) located at zero-crossings of the wobble (1), each sinusoidal mark (2) being formed from a sinusoidal deviation of the groove; wherein the presence of one of the first plurality of sinusoidal marks (2) at one of the zero-crossing represents an active bit and the absence of one of the first plurality of sinusoidal marks (2) at one of the zero crossings represents an inactive bit, a plurality of the active bits and the inactive bits representing an information field (see Fig. 6A).

Regarding claim 2, see Fig. 11A which shows the plurality of sinusoidal marks has the same amplitude as the wobble.

Regarding claim 3, see Fig. 2 which shows a sinusoidal mark (2) has a period shorter than that of the wobble (1). Accordingly, the sinusoidal mark has a frequency greater than the frequency of the wobble based on the period.

Regarding claim 5, see Fig. 15A which shows a second plurality of sinusoidal marks located at a zero crossings of the wobble having a different phase than the first plurality of sinusoidal marks.

Regarding claims 6-10, see Fig. 2 and 11A which show a plurality of first and second sinusoidal marks located adjacent to each other at zero crossings and the second plurality of sinusoidal marks located at zero crossing of the wobble having the same phase as the first plurality of sinusoidal marks.

Regarding claim 36, see Fig. 6A.

4. Claims 1,3, 5-10 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Asano et al (US 6,621,772)

Regarding claim 1, see Figs. 9-14C and 34 Asano et al. which show a spiral groove (3, 4) in an optical disk (see Fig. 9) comprising: a wobble (351) which is a sinusoidal deviation from the centerline of the groove; and a first plurality of sinusoidal marks (see marks in Fig. 11 or 34) located at zero-crossings of the wobble, each sinusoidal mark being formed from a sinusoidal deviation of the groove (see marks Fig. 11 or 34); wherein the presence of one of the first plurality of sinusoidal marks at one of the zero-crossing represents an active bit and the absence of one of the first plurality of sinusoidal marks at one of the zero crossings represents

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an inactive bit, and a plurality of the active bits and the inactive bits representing an information field (see Fig. 14).

Regarding claim 3, see column 21, lines 40-43, which disclosed that the sinusoidal mark (20) has a frequency greater than the frequency of the wobble 351.

Regarding claim 5, see Fig. 11 which shows a second plurality of sinusoidal marks located at a zero crossings of the wobble having a different phase than the first plurality of sinusoidal marks.

Regarding claims 6-10, see Fig. 34 which show a plurality of first and second sinusoidal marks(20) located adjacent to each other at zero crossings and the second plurality of sinusoidal marks located at zero crossing of the wobble having the same phase as the first plurality of sinusoidal marks.

Regarding claim 36, see Fig. 14A-14C.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asano (EP 0969 452 A1) or Asano et al (US 6,621,772).

Asano, according to Fig. 2, and Asano et al., according to Figs. 9-14C and 34, each shows all the feature of the instant claimed invention (see the rejections above) except for the use of sinusoidal marks having frequency 3 to 5 times the frequency of the wobble as further recited in

claim 4. However, both Asano and Asano et al do suggest the use of a higher frequency for sinusoidal marks as compared to a frequency of the wobble in order to easily detect the sinusoidal marks. Thus, selecting a frequency 3 to 5 time the frequency of the wobble is considered merely a selection of alternative and within the skill of the artisan based on the suggest of Asano and Asano. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the groove in the optical disk of either Asano and Asano et al. by selecting the particular frequency range based on the suggest of Asano and Asano et al. in order to easily detect the sinusoidal marks, but avoid the interference with the frequency of data information.

***Response to Arguments***

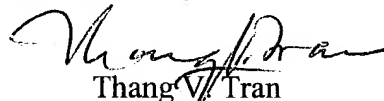
7. In response to Applicant's arguments filed 08/18/04 related to Asano reference, Applicant's attention is drawn to Fig, 6A of Asano '452 which shows the use of an information field which is constituted by at least marks (2) in replaced for area 290, sync 310, and the wobble. Accordingly, Asano '452 does show the use of the field as recited in the instant claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (703) 308-1551. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Thang V. Tran  
Primary Examiner  
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